

# CHEMICAL INSIGHTS



## This Time It Really Is Different: Chemicals M&A 2015 - 2016

On December 3<sup>rd</sup>, with just under a month left in the year, the Wall Street Journal published an article, "2015 Becomes the Biggest M&A Year Ever," based on the number and value of recently announced deals. With mega-deals like Pfizer's merger with Allergan (\$160 billion), InBev's acquisition of SABMiller (\$106 billion) and Dell's takeover of EMC Corp. (\$67 billion), the chemical industry may have been feeling somewhat neglected.

But that was before the announcement of what may become the second largest deal of the year, the pending merger of Dow Chemical and DuPont. With a combined market capitalization of \$120 billion, it will be the largest chemicals transaction in history, and will mark the end of two of the most storied companies in American economic history. Not long ago, industry analysts typically divided the industry into three sectors: specialties, commodities, and diversified chemicals. The largest of the diversified chemical manufacturers were integrated, global behemoths whose names were familiar, even to the general public: Dow Chemical, DuPont, ICI, BASF, Union Carbide, and Hoescht. After the Dow-DuPont merger, all of these companies except for BASF will no longer exist or be recognizable: they either will have been acquired, merged, sold off in pieces or broken up. The merger of Dow (founded 1897) and DuPont (founded 1802) will mark the end of an era.

Clearly the market structure of the chemical industry is being transformed, with M&A being the primary catalyst for change. Even without the Dow-DuPont deal, we already knew that 2015 would be a very good year for chemicals M&A. Average deal multiples have increased, and for public companies, valuations reached record levels of 11.9x EBITDA in June before falling back a bit in the second half of the year (see our Chemical Index chart on page 5). In our final newsletter for 2015, we will look at some of the forces that have shaped the chemicals M&A environment in 2015, and see what may be in store for 2016.

**The Economy:** At the end of 2015, it will be six and half years since the end of the Great Recession. That's a remarkably long expansion, albeit from a very low ebb. While the U.S. has maintained a relatively slow pace of growth, Europe has struggled with continuing sovereign debt issues, a weak Euro, and more recently with a massive influx of refugees from the Middle East. China's growth has slowed this year – some say too rapidly – as it attempts to shift to a more consumer oriented economy. Slowing growth in China and other nations that are heavy consumers of natural resources has had a ripple effect, as suppliers in resource-producing nations have experienced softening demand. As a result, commodity prices have declined across the board. The headline story for commodities in 2015 was of course oil, which began falling in the summer of 2014 and continued throughout 2015, with oil dropping below \$40 per barrel in the first week of

December. The stock market has been weak, and as of the second week in December, both the Dow and S&P 500 are down modestly for the year.

Given this backdrop, it's somewhat surprising that the M&A environment has been as good as it is. Counter-intuitively, the slow pace of recovery may actively promote M&A. With so much slack in the U.S economy, and Europe and Asia in transition, most economists believe a recession in the near term is a remote possibility, which mitigates the risk of buying high, just before a target's performance turns down. Also, continuing low interest rates (even with the Federal Reserve's intentions to modestly raise rates) and access to credit support both high valuations and a robust level of M&A activity. In an absence of organic growth opportunities, firms will turn to acquisitions as a means to accelerate growth. A low interest rate, low growth environment also provides an ideal time to restructure a portfolio, shedding low performing assets and using acquisitions to bulk up core businesses.

**The Strategic Landscape:** For several years, a number of large diversified chemical firms have been realigning their portfolios, divesting their lower margin businesses and moving toward a greater concentration in specialty chemicals. The Dow-DuPont merger can be seen as a natural consequence of this process. Both businesses have been divesting or spinning off business units, in essence distilling their operations down to a more focused enterprise. DuPont sold its automotive coatings business (now the publicly-traded Axalta Coatings Systems) to The Carlyle Group in 2013, and spun off its performance chemicals business Chemours earlier this year. Dow also has been active this year, selling its sodium borohydride business to Vertellus Performance Chemicals, ANGUS Chemical to Golden Gate Capital, and its AgroFresh business to Boulevard Acquisition Corp. It also sold its chlor-alkali business to Olin in exchange for \$2 billion in cash and about half of Olin's stock.

For both companies, one of the catalysts for this relatively frenetic level of activity has been the influence of activist investors: Nelson Peltz of Trian Fund Management in the case of DuPont, and Daniel Loeb of Third Point LLC for Dow. Pressure from Peltz was likely behind the early October resignation of DuPont's CEO Ellen Kullman, who was replaced by board member Ed Breen, a former CEO of Tyco International who has experience in financially engineered corporate breakups. At Dow, Loeb has been pressurizing CEO Andrew Liveris for several years to divest Dow's petrochemicals business. Liveris apparently has been pursuing the concept of a merger with, or an acquisition of, DuPont for several years, and with the appointment of Breen, he saw an opening. After the merger is completed in 2016, the combined companies will break up into three pure play, publicly-traded companies, focused respectively on agriculture, material sciences, and specialty products in nutrition, electronics, and biosciences.

Activist investors have taken positions in a number of other chemical firms including Calgon Carbon and Air Products, and in coming years will likely pressure these firms and others to accelerate their portfolio restructurings. Changes are already in progress at Air Products, where activist pressure led to the resignation of former CEO John McGlade in June 2014. His successor Seifi Ghasemi (another world-class financial engineer) announced a restructuring that has included the elimination of 1,500 jobs and the spin-off of the materials technology business, to be called Versum Materials, by September 2016.

Of course, not all transactions have quite the same drama as those involving chemical industry giants and Wall Street activists. For other strategic buyers, strong balance sheets and access to low-cost debt continue to drive transactions where the goal is to create synergies and strengthen the acquiring company's portfolio. In another high profile transaction this year, Solvay's \$6.4 billion acquisition of Cytec will enable the Brussels-based Solvay to continue moving away from cyclical, basic chemicals toward more specialized high performance specialties, particularly lightweight composite materials for aerospace and high-end automotive applications.

**Private Equity:** Some of the major beneficiaries of corporate divestitures have been well-financed private equity groups that have been pursuing their own "strategic" agendas. In fact, to speak of "private equity buyers" and "strategic buyers" as two distinct types is no longer meaningful. Increasingly in the chemical industry, "private equity" has come to mean "private equity-backed strategic buyers." The acquisition rationale for this type of buyer is the same as for the traditional strategic buyer: acquire companies – preferably a series of companies – that enhance the growth prospects or profitability of existing assets. "Roll-ups," or serial acquisitions in particular market segments, have become a common strategy for private equity groups investing in chemicals. After acquiring an initial "platform" company, the private equity firm actively seeks complementary acquisitions in the same market, recognizing that small, "bolt-on" transactions can disproportionately enhance value if there are synergies with the platform. An example of a typical roll-up strategy is the constellation of deals surrounding Koda Distribution Group, the large chemical distributor that is owned by the private equity firm Audax Group.

Audax is in the process of selling Koda to another chemical distributor, the Brussels-based Azelis Group, with the deal expected to close by the end of the year. Azelis itself is majority-owned by the private equity group Apax Partners. Under Audax's ownership, Koda has been especially acquisitive. Earlier this year it bought Unipex Solutions (April) and Colonial Specialty Chemicals (June). And these were only the latest in a string of acquisitions since Audax acquired the company in 2010.

**The Middle Market:** The middle market, most generally defined as privately held companies with revenues below \$1 billion, continues to be the sweet spot in M&A. Smaller specialty chemical businesses are in demand, especially profitable, well-managed firms that have an established presence in growing niche markets. Strategic buyers, including private equity-backed "roll-ups," find that it's often difficult to compete with a privately held firm that has an entrenched market position, and they see an acquisition as the only viable way to penetrate their market. Middle market sellers are mindful that valuations have been high, and they continue to bring these assets to market. A classic middle market deal of this type in 2015 was Hempel's acquisition of Jones-Blair, a niche market leader in industrial maintenance coatings for the oil & gas markets and high-end protective coatings for the construction industry. Jones-Blair was well known for its technologically-advanced, user-friendly products and industry-leading customer service. Jones-Blair was purchased by Hempel A/S, a Copenhagen, Denmark-based manufacturer of high performance coatings that has used acquisitions to enhance growth in its targeted markets. Hempel recognized that Jones-Blair provided a near perfect strategic fit with its complementary products and technologies, and also a platform to extend its geographic reach in North America.



**2016 Preview:** It's never clear exactly where we are in the economic cycle, but it appears that given the slack in the economy we are not getting close to a top, and we tend to go along with the consensus that a recession may still be some years off. That's not to say that we're closer to the beginning than to the end, since the end of a business cycle can be sudden and steep. Nevertheless, interest rates, inflation, and the unemployment rate all remain low, and few other economic indicators seem to be flashing warning signs. This may be just a round-about way of saying that we think the business and economic conditions in 2016 will be a lot like 2015, generally benign but with a few bumps along the way due to stock market volatility and external factors (the presidential election, the Middle East, Russia, etc.).

Although 2015's record will be hard to top, chemical industry M&A activity can be expected to be robust. The Dow-DuPont merger itself will generate additional activity; regulatory scrutiny may drive divestitures resulting from the merger, and the three new publicly-traded firms will probably be hunting for growth in acquisitions, as well as prompting competitors in their markets to seek synergistic assets. Industry observers have already identified agricultural chemicals as a potentially "hot" sector, especially in the wake of the unravelling of Monsanto's bid for Syngenta in August. The new Dow-DuPont agricultural spinoff will be larger than Monsanto in both seeds and crop protection, and it's unlikely that Monsanto will take this challenge to its dominance lying down.

For other strategic chemical firms, we expect to see a continuance of portfolio churn, due both to pressure from outside investors and the trend of acquiring "upgrades" that build on core competencies. Grace Matthews is currently managing an unusually high number of corporate carve-outs, and we expect this trend to continue. There are also sectors that are consolidating, but where high quality middle-market targets may be becoming scarce. In these situations, we won't be surprised to see several high-profile acquisitions or mergers of publicly-traded firms. Our best bet for a 2016 large cap deal: coatings.

Private equity groups have raised new funds over the past few years, and in 2016 will seek new platforms or "bolt-on" companies for existing assets. Specialty chemical companies, a perennial favorite for private equity, will continue to be targeted, but increasing competition will force private equity to look at lower margin, cash generating businesses that can be acquired at reasonable multiples. One sector that fits this mold is chemical distribution, a globally fragmented industry where private equity as well as large public firms like Brenntag and Univar are pursuing roll-up strategies. An enhancement to this strategy that we believe will gather steam in 2016 and coming years involves distributors acquiring manufacturing firms, typically blenders with low capital requirements and that offer semi-custom solutions to a niche customer base. This "manufacturing lite" approach allows distributors to extend their market penetration with higher margin products, and gives them the opportunity to solidify partnerships with their core manufacturing suppliers through extended service/logistics/supply chain support.

## Selected 2015 Chemical Industry Transactions

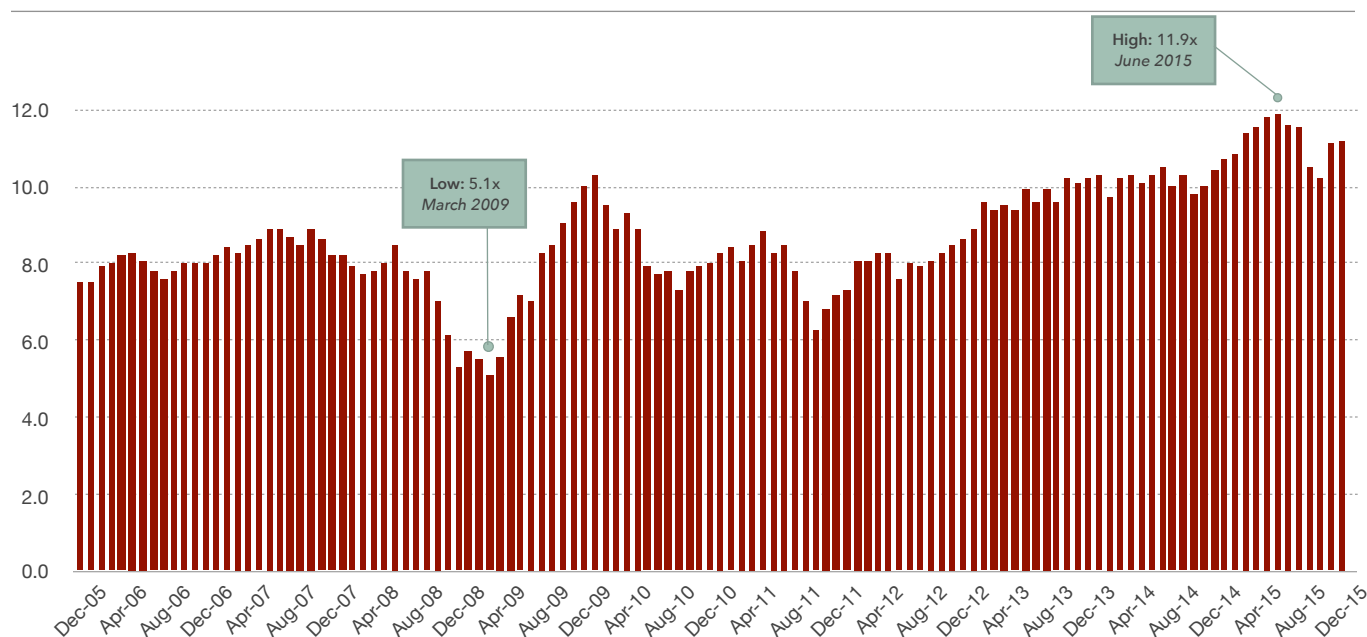
Transaction values in \$US millions					
Date	Acquirer / Target	Target Description	Transaction Value	TEV / Sales*	TEV / EBITDA*
pending	Dow Chemical merger with DuPont	Diversified chemicals	\$142,400	1.7x	10.1x
Nov-15	L'Air Liquide / Airgas	Industrial, medical, and specialty gas; and related products	\$13,075	2.4x	13.4x
Nov-15	Huntsman Family Investments / American Pacific Corporation specialty chemicals business	Rocket-grade ammonium perchlorate and specialty chemicals	NA	NA	NA
Oct-15	Edgewater Capital / ChemQuest Chemicals	Value-added distributor and custom blending	NA	NA	NA
Oct-15	Lotte Chemical Corp / Samsung chemicals business	Fine chemicals and lithium ion battery and renewable energy technologies	\$2,262	NA	NA
Oct-15	Audax Group / California Products	Architectural and specialty coatings	NA	NA	NA
Oct-15	Equate Petrochemical Company / MEGlobal	Ethylene glycol	\$6,400	NA	NA
Oct-15	Honeywell / Sigma-Aldrich research chemicals business	Solvents, biochemical research chemicals, pharmaceutical chemicals, titration reagents	\$119	NA	NA
Oct-15	Azelis / Koda Distribution	Specialty chemical distributor	NA	NA	NA
Oct-15	California Products / Dry-Treat	Architectural coatings (Australia)	NA	NA	NA
Oct-15	The Reynolds Company / Progressive Adhesives	Packaging adhesives and sealants	NA	NA	NA
Oct-15	Superior Plus / Canexus	Sodium chlorate and chlor-alkali chemicals	\$753	1.7x	9.9x
Sep-15	Kraton Performance Polymers / Arizona Chemical	Specialty chemicals derived from non-hydrocarbon, renewable raw materials	\$1,370	1.6x	7.4x
Sep-15	Symrise / Pinova Holdings, Inc.	Wood rosin and natural wood chemicals; specialty chemicals from natural and renewable feed stocks	\$417	NA	NA
Sep-15	Accella Performance Materials (Arsenal Capital) / Premium Spray Products	Custom polyurethanes and recycled rubber products; spray foams and specialized polyurethane systems	NA	NA	NA
Sep-15	PPG / IVC Industrial Coatings	Industrial coatings	NA	NA	NA
Aug-15	GAF / Quest Construction Products	Construction coatings and protective roofing systems	NA	NA	NA
Aug-15	Berry Plastics / Avintiv	Specialty materials used in hygiene products, face masks, surgical gowns, wipes	\$3,860	2.0x	17.1x
Jul-15	Solvay / Cytec	Specialty materials and chemicals	\$6,400	3.1x	14.7x
Jul-15	Platform Specialty Products / Alent	Advanced surface treatment chemicals (U.K.)	\$2,351	2.3x	14.0x
Jun-15	KODA Distribution Group / Colonial Specialty Chemicals	Metalworking and industrial lubricants distributor	NA	NA	NA
Jun-15	Apollo / OM Group	Metal-based chemistries	\$1,030	1.0x	11.8x
Jun-15	Platform Specialty Products / OM Group electronic chemicals and photomasks	Electronic chemicals	\$365	NA	NA
Jun-15	Valspar Corporation / Quest Specialty Chemicals automotive products and industrial products businesses	Automotive refinish and industrial coatings	NA	NA	NA
May-15	Magna Resources Corporation / PT Chandra Asri Petrochemical	Ethylene, propylene, butadiene, polyethylene and polypropylene	\$1,846	0.8x	16.8x
May-15	Dominus Capital / W.F. Taylor	Flooring adhesives	NA	NA	NA
May-15	Boulevard Acquisition (Avenue Capital) / Dow Chemical AgroFresh business	Agricultural chemicals	\$879	NA	8.7x
Apr-15	Capital Southwest - Whitmore Manufacturing / Strathmore Products	Industrial coatings	\$69	1.1x	7.0x
Apr-15	American Securities / Royal Adhesives and Sealants	Diversified adhesive/sealant formulator	NA	NA	NA
Apr-15	KODA Distribution Group / Unipex Solutions Canada	Chemicals distributor	NA	NA	NA
Apr-15	New Mountain Capital / Zep	Cleaning and maintenance chemicals	\$700	1.0x	14.9x
Mar-15	PPG / Flood Australia	Wood stains and paint additives	NA	NA	NA
Mar-15	PPG / Revocoat	Automotive adhesives and sealants (France)	NA	NA	NA
Mar-15	Olin Corp. / Dow Chemical chlor-alkali business	Chlor-alkali and downstream derivatives	NA	NA	NA
Mar-15	A. Schulman / Citadel Plastics Holdings	Thermoset composites and compounds	\$800	1.5x	10.7x
Mar-15	One Rock Capital Partners / Compass Chemical International	Specialty chemicals for the water treatment and oil & gas industries	NA	NA	NA
Mar-15	Edge Adhesives / Isothermal Protective Coatings	Elastomeric roof coatings	NA	NA	NA
Mar-15	Hempel / Jones-Blair	Industrial paints and coatings	NA	NA	NA

Transaction values in \$US millions

Date	Acquirer / Target	Target Description	Transaction Value	TEV / Sales*	TEV / EBITDA*
Mar-15	Accella Performance Materials (Arsenal Capital) / IPS Polymer Systems	Polyurethanes	NA	NA	NA
Mar-15	The Blackstone Group / Orica Limited chemicals business	Chlor-alkali, ingredients for food, pharma, cosmetics and personal care	\$647	0.7x	7.7x
Feb-15	Tronox / FMC (Soda Ash Business)	Alkali chemicals	\$1,640	2.2x	NA
Feb-15	Arkema / Bostik	Adhesives and sealants	\$1,953	1.1x	11.0x
Feb-15	HB Fuller / Beijing TONSAN Adhesives	Engineering adhesives, sealants, coatings and putties	\$237	2.4x	12.1x
Jan-15	Vertellus Specialties / Dow Chemical sodium borohydride business	Sodium borohydride	NA	NA	NA

\* TEV = Total Enterprise Value (market capitalization plus funded debt, minority interests and preferred shares; less cash and cash equivalents)

## Grace Matthews Chemical Index: Enterprise Value / EBITDA



Source: Grace Matthews & Capital IQ

The Grace Matthews Chemicals Index tracks the Enterprise Value / EBITDA ratios ("EV/EBITDA multiples" or just "EBITDA multiples")<sup>1</sup> of 48 publicly-traded chemical companies that span multiple markets and geographies. The index aggregates the latest reported financial data and stock prices, and tracks valuation trends and operating metrics across different industry sectors. The Index averages are equally weighted, as opposed to weighting by market capitalization, in order to avoid having the valuations and financial performance of the largest companies determine index values.

### Grace Matthews Chemical Index Current Values

	Total Enterprise Value / Revenues	Total Enterprise Value / EBITDA	Gross Margin % Sales	EBITDA % Sales	Trailing Twelve Months Revenue Growth %	Trailing Twelve Months EBITDA Growth %
<b>Mean</b>	1.9x	11.2x	30.8%	15.9%	-	3.7%
<b>Median</b>	1.8x	11.4x	29.7%	15.4%	(1.2%)	2.3%
<b>High</b>	3.7x	19.5x	55.8%	32.5%	52.0%	122.6%
<b>Low</b>	0.6x	6.0x	10.6%	6.7%	(26.6%)	(41.4%)

<sup>1</sup> "Enterprise Value" or "EV" is the sum of all invested capital in a company, including both the value of equity (market capitalization) and funded debt less cash and cash equivalents.

## Grace Matthews Chemicals and Materials Practice: Select Transactions

 sold its portfolio company  to 	 has been acquired by 	 has been acquired by 	 has been acquired by 
 has been acquired by 	 has been acquired by 	 has acquired select assets of the Capcure business from 	 has sold certain assets to 
 has been acquired by 	 has been acquired by 	 has acquired the assets of 	 has sold its Resilient Floor Coatings Business to 
 has sold its portfolio company  to 	 has acquired  from 	 has acquired 	 Becker Industrial Coatings has acquired the stock of 
 has acquired 	 has acquired 	 has acquired 	 has sold its specialty chemical subsidiary  to 



## Grace Matthews Chemicals and Materials Overview

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Grace Matthews' chemical group is recognized globally as a leader in transaction advisory services for manufacturers and distributors throughout the chemical value chain. Grace Matthews' clients include privately held businesses, private equity funds, and large, multinational corporations.

Grace Matthews' practice is global in scope, and focuses on several areas: sell-side transactions for private companies, private equity holdings, and divestitures for multi-national corporations; buy-side work, typically for large, public companies or major multi-nationals and sponsor-backed chemical platforms; leveraged transactions involving raising debt and/or equity capital, strategic advisory analysis, and transaction fairness opinions. Areas of expertise include:

- Paints, Industrial Coatings, Inks
- Adhesives, Sealants, Tapes
- Plastics, Polymers, Resins
- Colorants, Additives
- Construction Materials
- Contract Packaging
- Biomaterials
- Agricultural Chemicals
- Inorganics, Ceramics, Catalysts
- Personal Care, Soaps, Cleaners
- Fine Chemicals
- Water Treatment Chemicals
- Oil & Gas Process Chemicals
- Industrial Minerals

Grace Matthews is a privately held investment bank with successful chemical industry transactions dating back to the early 1990s. Grace Matthews principals have completed over 100 transactions involving global corporations such as AkzoNobel, 3M, Lubrizol, BASF, DuPont, Sherwin-Williams, PPG Industries, Ashland, Ceradyne, DSM, ICI, Borregaard, Air Products, Landec Corporation, The Home Depot, Hexion Specialty Chemicals, ITW, PolyOne, Weatherford, and Evonik, to name a few.

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Grace Matthews, Inc. ([www.gracemattthews.com](http://www.gracemattthews.com)) is an investment banking group providing merger, acquisition, and corporate finance advisory services for chemical companies both in the U.S. and internationally. Grace Matthews is global in scope and well known for its strong track record of success dating back to the early 1990s.

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